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**Negative online word-of-mouth:  
Behavioral indicator or emotional release?**

**Research Memorandum 2012-10**

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# **Negative online word-of-mouth: behavioral indicator or emotional release?**

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**Abstract:** The influence of negative online word-of-mouth on the behavior of those receiving it has been addressed extensively in the academic literature. Remarkably, the question whether negative online word-of-mouth should also be seen as a behavioral indicator *of its sender* remains unaddressed. Answering this question is relevant as it provides companies with insight into the need to engage in interaction with those who negatively express themselves online or whether these expressions should be seen as temporary emotional releases without any future conduct. To fill the existing research gap, this research paper proposes and empirically tests a sender-oriented model, investigating the influence of emotions, negative online word-of-mouth on repatronage and switching behavior. As disclosing negative feedback online may also reflect the sender's motivation to inform the consumer community or to provide constructive feedback to the company responsible for the dissatisfying consumption, community usefulness and company usefulness are included as behavioral moderators. The results of an empirical survey conducted amongst real senders of negative information confirm that negative online word-of-mouth is directly driven by positive and negative emotions and is strongly predictive for the sender's future conduct. The motivation to help other consumers was demonstrated to function as behavioral moderator. The paper concludes with theoretical and managerial implications, and suggests avenues for further research.

**Keywords:** negative online word-of-mouth, positive and negative affect, community usefulness, company usefulness, repatronage, switching, post-consumption.

# Negative online word-of-mouth: behavioral indicator or emotional release?

## 1. Introduction

The Internet provides consumers with a rich and easily accessible platform for sharing consumption experiences and assessing such experiences from others (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004). Next to sharing positive experiences and distributing recommendations for particular products, more and more consumers use the online medium to distribute unfavorable experiences. This so-called negative online word-of-mouth (negative O-WOM) consists of disclosed individual negative experiences and opinions about goods, services and organizations that have been formed during the post-consumption process (Bougie, Pieters, & Zeelenberg, 2003; Lee & Song, 2010). It is suggested that individuals are more honest in sharing their negative experiences online because the anonymity of a person on the Internet prevents them from facing any social consequences (Joinson, 2001; Yun & Park, 2011). Given that negative O-WOM may impede the purchase behavior of its receivers, and thus has the potential to decrease the revenues of firms (Liu, 2006; Reichheld, Markey, & Hopton, 2000), the concept recently has received a lot of attention in the academic literature (Duan, Gu, & Whinston, 2008a; Pan & Zhang, 2011; Sen & Lerman, 2007) and more research is openly called for (Lee & Song, 2010).

As will be demonstrated in the next section of this paper, however, the available body of literature has mainly considered the role of negative O-WOM in influencing the behavior of those being confronted with these negative disclosures, leaving the issue whether negative O-WOM is also indicative for the behavior *of the sender* of this message unaddressed. In this study we adopt this intriguing research topic and propose an integrated model of consumer emotions, negative O-WOM and consumer future behavior. More specific, rooted into the O-WOM and customer complaining literature, this paper aims at answering the following research question: how and to what extent do consumer emotions translate into negative O-WOM, and thereof in repatronage and switching behavior? Developing insight into these relationships will not only tell us to what extent negative O-WOM is driven by emotions (emotional release); it will also demonstrate whether this effect is carried over to intended future behavior (behavioral indicator).

This paper intends to make three specific contributions to the existing body of literature. First, it adopts a sender-oriented perspective and uses the theory of social sharing (Rimé, 2009), self-perception theory (Bem, 1967) and cognitive dissonance theory (Festinger, 1957) to propose and empirically test interrelationships between emotions, negative O-WOM, and behavioral consequences. As such, we aim to develop more insight into the behavioral dynamics and consequences of negative O-WOM from a sender's perspective. The gained insights aim to add to the rather receiver-dominated negative O-WOM research field and may assist organizations in better understanding and valuating the negative O-WOM expressions of consumer. Second, our focus on emotion as a primary driver of O-WOM and behavior corresponds to calls for more research on the role of emotions in online settings (e.g., Éthier, Hadaya, Talbot, & Cadieux, 2008; Flavián-Blanco, Gurrea-Sarasa, & Orús-Sanclemente, 2011; Koo & Ju, 2010). In particular this study sheds light on the relative influence of both negative and positive emotion as direct determinant of negative O-WOM. As such it intends to contribute to the debate in the literature whether the ventilation of unpleasurable experiences online is primarily driven by negative emotion (Babin & Babin, 2001; East, Hammond, & Wright, 2007; Machleit & Eroglu, 2000; Nyer & Gopinath, 2005), or is determined by a mixture of negative and positive emotion (cf., Nyer, 1997; Westbrook, 1987). Third, following prior research (Lee, Kim, & Kim, 2012), the sender's motives accompanying O-WOM may influence how the sender actually responds to the disclosed O-WOM. Engaging in WOM is not just something people do for themselves, but may also be driven by the motivation to inform others (Sundaram, Mitra, & Webster, 1998). Therefore, two moderators were added to our main model structure: community usefulness and company usefulness. These two concepts reflect the sender's motivations to share negative experiences in order to assist other community members or provide constructive feedback to the company perceived as being responsible for the dissatisfied experience. By examining whether these two elements moderate the influence of negative O-WOM on behavioral intentions, we aim to put this research in the context of previous findings and deepen our understanding of negative O-WOM behavior from a sender's perspective.

The remainder of this paper is organized as follows. First, we provide the conceptual background of negative O-WOM and conduct a systematic review of the literature on this phenomenon. Next, we introduce our research model, pay attention to its theoretical foundations, and elaborate upon the hypotheses. Then, we describe the methodology and

report on the empirical results. The paper concludes with a discussion of the implications of our findings, including limitations and venues for future research.

## **2. Conceptual background**

### *2.1 Negative O-WOM*

O-WOM is a relative quick, informal way of sharing opinions and experiences related to products with other consumers who are geographically dispersed (Cheung & Lee, 2012; East et al., 2007). O-WOM can be either positive or negative in nature, implying that one either encourages or discourages the consumption of a particular product (East et al., 2007). Recent study indicates that in particular negative O-WOM may have very strong effects on consumer behavior and even drives companies to make use of webcare teams. These teams aim to service dissatisfied customers as a way to reduce the chance that negative opinions spread through and are adopted by the consumer population at large (Van Noort & Willemsen, 2011).

Basically, consumers distribute negative O-WOM to communicate a dissatisfying consumption experience (Anderson, 1998). This unfavorable experience often is due to a malfunctioning product or an unfavorable customer service. The problems consumers experience can be enduring and occur for many different consumers at the same time or can be the result of infrequent lapses of product quality and service practices (Richins, 1984). Consumers share these experiences with others for a number of reasons. First, consumers may use negative WOM for themselves, for example to draw attention to the cause of their dissatisfaction in order to get a solution (Thøgersen, Juhl, & Poulsen, 2009) or as a mechanism to vent negative feelings in order to reduce anxiety (Nyer, 1997; Richins, 1984). Second, consumers may disclose unfavorable experiences to prevent others from enduring similar bad experiences (Litvin, Goldsmith, & Pana, 2008; Parra-López, Bulchand-Gidumal, Gutiérrez-Tano, & Díaz-Armas, 2011). The latter reason often is observed in situations where an individual participates in online communities, where social relationships with others are developed through sharing and discussing interest in products or services. Especially when consumers have received helpful support and advice themselves, this can motivate them to provide others with helpful advice as well (Brown, Broderick, & Lee, 2007). Third and finally, consumers may ventilate their thoughts and feelings on a bad experience openly as a way to encourage the company to improve its practices. In particular in situations where a

relationship exists, consumers may complain to assure that the issue is structurally solved (Zaugg & Jäggi, 2006). In relationships of high quality and trust such complaining behavior may be communicated openly (Forrester & Maute, 2001) via, for example online forums (Harrison-Walker, 2001). From a complaint management perspective, companies may even encourage such open complaining as it proves their commitment towards the customer and transparency of their operations (Hart, Heskett, & Sasser, 1990; Spreng, Harrell, & Mackoy, 1995).

There is consensus in the literature that negative O-WOM is an influential behavioral determinant (Brown et al., 2007; Sun, 2006). Due to the spread and adoption of new consumer-empowering technologies such as social media and mobile devices complaints and dissatisfied experiences can be communicated and distributed instantly within a huge network of other consumers (Van Noort & Willemsen, 2011). The large scale availability of negative O-WOM, combined with the fact that the majority of consumers puts trust into these disclosures when engaging in online buying behavior (Ye, Law, Gu, & Chen, 2011), emphasizes the need for examining negative O-WOM into detail.

## 2.2 Previous research on negative O-WOM

To provide an overview of the negative O-WOM research field, and frame our work within this field, a systematic literature study was conducted. We searched for search terms such as “online word of mouth”, “O-WOM”, “E-WOM”, “WOM” in academic databases such as ScienceDirect, ABI/INFORM, and Web of Knowledge. A few hundred empirical papers were found. We excluded those papers focusing on WOM in offline settings, as well as those not paying attention to negative O-WOM. This resulted in a total of 20 relevant empirical papers (Table 1).

**Table 1 Overview of relevant research about negative O-WOM**

Author(s)	Platform studied	Determinants	Consequences	Key Finding(s)
Sen & Lerman (2007)	Review sites		Review usefulness	Negative O-WOM about a utilitarian product is considered to be helpful from the receiver’s perspective.
Duan, Gu & Whinston (2008b)	Review sites		Box office sales	No direct influence of negative O-WOM on sales was found.

Lee, Park & Han (2008)	Simulated product reviews		Product attitude	High levels of negative O-WOM can develop into unfavorable consumer attitudes.
Park & Kim (2008)	Simulated product reviews		Review informativeness, usefulness and helpfulness	Experts find negative O-WOM at the product attribute level most valuable; novices prefer negative O-WOM at the overall product level.
Park & Lee (2009)	Consumer reviews on shopping mall websites		WOM effect	Consumers are more influenced by negative O-WOM than by positive O-WOM, especially when it concerns experience goods.
Chakravarty, Liu & Mazumdan (2010)	Message board		Consumers' evaluation of movies	Negative O-WOM has a stronger effect on consumers' evaluation of movies than positive O-WOM.
Koh, Hu & Clemons (2010)	Review sites	Collectivist and Individualistic societies		Consumers in individualistic countries are more prone to engage in negative O-WOM than consumers in collectivistic countries.
Yang & Mai (2010)	Review sites		Consumers' agreement with the review	Negative O-WOM has more influence on potential consumers than positive O-WOM.
Zhang, Craciun & Shin (2010)	Review site		Persuasiveness	When consumers evaluate information to prevent unfavorable outcomes, negative O-WOM is considered to be more persuasive than positive O-WOM.
Bambauer-Sachse & Mangold (2011)	Review sites		Consumer's brand evaluations	Negative O-WOM has a negative influence on brand evaluations, also when consumers know and favor the brand.
Chen, Fay & Wang (2011)	Review sites	Product price, Product quality		There is a significant relationship between product quality and negative O-WOM. A relationship between product prices and negative O-WOM was not found.
Fagerström & Ghinea (2011)	Product reviews were simulated		Purchase decision	Negative O-WOM has a negative influence on online purchase decision.
Khammash & Griffiths (2011)	Review sites		Motivation to read reviews	Consumers use negative O-WOM to assess the risk of their buying decision, to learn about new products, and to reduce dissonance after having bought a product.
Khare, Labrecque & Asare (2011)	Review site		Consumer preference	Negative O-WOM has a significant negative influence on consumer preference, especially when the volume is high.
Kim & Gupta (2011)	Simulated website with reviews		Consumers' product evaluations	O-WOM that contains negative emotions is perceived as less rational and less informative than O-WOM that is neither negative nor positive.
Moldovan, Goldenberg & Chattopadhyay (2011)	Consumers' intention to spread WOM	Product usefulness, Product originality		When a product is original but not useful, consumers spread more negative O-WOM.
Pan & Chiou (2011)	Messages from discussion		Credibility of online WOM,	For credence goods, negative O-WOM is perceived to be most trustworthy when



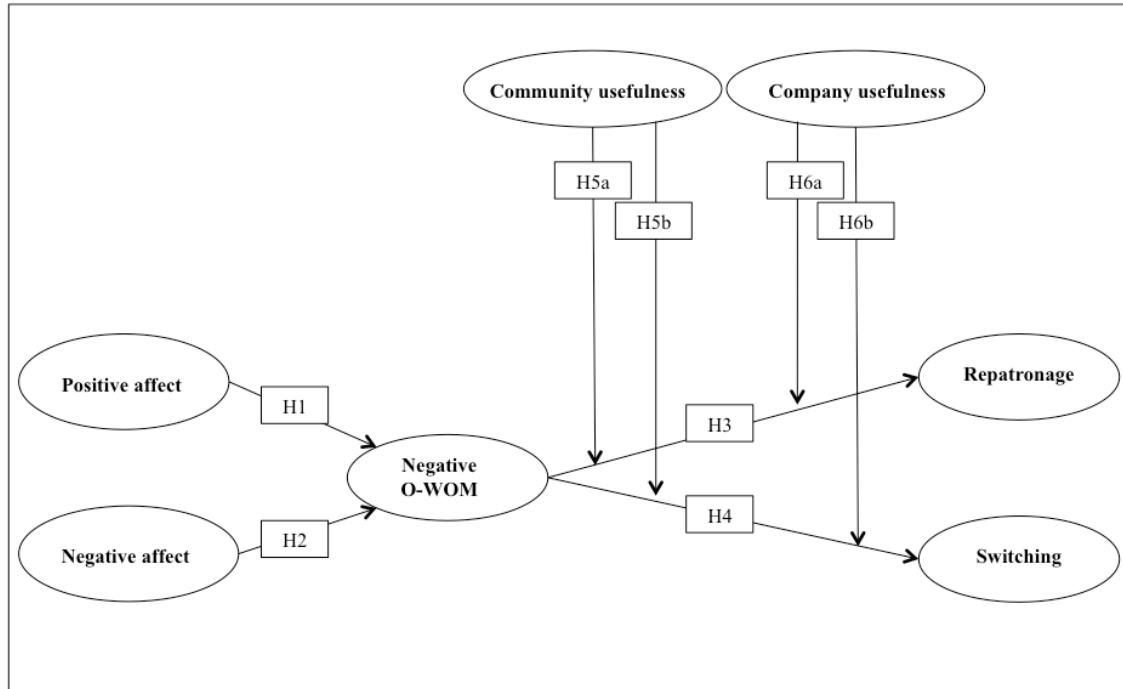
	boards were simulated	Attitude	<p>posted by individuals with whom the consumer has strong social ties.</p> <p>For experience goods, negative O-WOM is perceived to be most trustworthy when posted by individuals with whom the consumer has weak social ties.</p> <p>The influence of negative O-WOM on consumer attitude is stronger for experience goods than for credence goods.</p>
Sparks & Browning (2011)	Simulated website with reviews	Consumers' booking intention, Trust	<p>Booking intentions are higher when the reviews are predominantly positive compared to predominantly negative.</p>
Van Noort & Willemsen (2011)	Blogs	Consumer's brand evaluations	<p>Negative O-WOM has a stronger effect on perceived trust than positive O-WOM.</p> <p>A brand is evaluated more positively when webcare teams respond reactive and proactive to negative O-WOM.</p>

Drawing upon table 1, three observations can be made. First, prior research only has devoted little attention to the determinants of negative O-WOM (also see (Berger & Schwartz, 2011)). The few empirical studies that did address negative O-WOM determinants demonstrated that consumers are more likely to disclose negative O-WOM when products are of lower quality (Chen, Fay, & Wang, 2011), when products are not considered to be useful (Moldovan, Goldenberg, & Chattopadhyay, 2011), and when consumers are part of an individualistic culture (Koh, Hu, & Clemons, 2010). Remarkably, even though a theoretical paradigm such as the theory of social sharing indicates that emotions drive sharing behavior (Rimé, Philippot, Boca, & B., 1992), insight into the role of emotions as determinants of negative O-WOM seems to be absent. Second, regarding the consequences of negative O-WOM, all studies mentioned in the table adopted a receiver's perspective. Thus, the notion that negative O-WOM may have a negative influence on consumer behavior (Park & Lee, 2009; Yang & Mai, 2010), seems to be translated into a rather one-sided examination of this phenomenon. This observation underlines the value of adopting a sender's perspective. Third, while negative online disclosures can be written on different types of online platforms (e.g., online discussion forums, blogs, consumer communities, product review sites and microblogs), table 1 shows that the majority of studies has focused on product review websites. From a contextual perspective, it would be of interest to extend this focus to platforms such as online forums and other consumer communities as these are online environments deemed important by the O-WOM literature (e.g. Brown et al., 2007; Hennig-Thurau et al., 2004).

### 3. Research model and hypotheses

Figure 1 shows the proposed research model.

**Figure 1: research model**



The rationale behind the model draws upon three considerations. First, emotions are directly related to the act of engaging in negative O-WOM. This structure corroborates to multiple theoretical paradigms in consumer behavior (e.g., goal-directed action theory (Bagozzi & Kimmel, 1995; Perugini & Bagozzi, 2001); Stimulus-Organism-Response model (Mehrabian & Russell, 1974)) and psychology (e.g., emotion-action tendency (Frijda, 2010; Frijda, Kuipers, & Ter Schure, 1989); theories of appraisal (Lazarus, 1982, 1991)); all suggesting that experienced emotions may directly lead to consumer action. Following Laros and Steenkamp (2005) we conceptualize consumer emotions as two independent dimensions: positive affect and negative affect. Positive affect refers to the extent to which a person feels happiness, enthusiasm and joy. Negative affect equals the extent to which a person feels anger, frustration and irritation (Watson, Clark, & Tellegen, 1988). Positive and negative affect have been demonstrated to be universal across gender and age groups, cultures (DePaoli & Sweeney, 2000), and to apply to online consumer behavior settings (e.g., Verhagen & Van Dolen, 2011). Second, drawing upon exit-voice theory (Hirschman, 1970) and the literature on consumer complaining (e.g., Singh, 1990; Stephens & Gwinner, 1998; Zaugg & Jäggi,

2006) we posit two major complaint actions: negative O-WOM and switching intentions/repatronage intentions. Negative O-WOM equals ‘voice’, that is, the expression of complaints. Switching intentions/(negative) repatronage intentions equal ‘exit’, that is, ending the relationship with a company. Third, to deepen our understanding *when* negative O-WOM is indicative for switching and repatronage intentions, the moderators company usefulness and community usefulness complete the model. In the remainder of this section we elaborate on the research constructs and their assumed interrelationships.

### *3.1 The influence of affect on negative O-WOM*

There is relative consensus in the literature that WOM is to a large extent driven by emotions one just has experienced during consumption (Derbaix, 2003; Söderlund & Rosengren, 2007). An explanation for this relationship comes from the theory of social sharing (Rimé, 2009; Rimé et al., 1992), which states that people want to communicate their emotions openly with others as a way to arouse empathy, to get help and support, to get social attention, or to strengthen social ties. Given the social character of WOM, it seems plausible to expect that experienced affect leads to WOM (Derbaix, 2003; Ladhari, 2007). As consumers usually experience both negative affect and positive affect in the same consumption situation (Westbrook, 1987), both being two distinctive affective facets of consumption in offline (Laros & Steenkamp, 2005) and in online settings (Verhagen & Van Dolen, 2011), the influence of affect on negative O-WOM may concern both types of affect. Indeed, Nyer (1997) found that negative emotions such as anger and sadness, that were elicited during the consumption experience, contributed to the likelihood that individuals engage in negative WOM. Comparably, Zeelenberg and Pieters (2004), found that negative emotions elicited during a consumption experience are directly linked to distributing negative WOM. Jeong and Jang (2011) and also Nyer (1997) on the other hand, showed that positive emotions experienced during consumption can be expected to reduce the chance that consumers distribute negative WOM. Taking the above together, this makes it plausible to propose the following two hypotheses:

**H1:** Positive affect negatively influences negative O-WOM.

**H2:** Negative affect positively influences negative O-WOM.

### *3.2 The influence of negative O-WOM on repatronage and switching intentions*

To relate negative O-WOM to behavioral intentions, we draw upon two consistency theories: self-perception theory (Bem, 1967) and cognitive dissonance theory (Festinger, 1957). Following self-perception theory, if a consumer discloses feelings and opinions publicly he/she will feel socially committed to adhere to this position (Szymanski & Henard, 2001). Such a situation is typical for WOM settings where consumers openly vein their feelings (Tax, Chandrashekar, & Christiansen, 1993). Cognitive dissonance theory suggests that consumers will avoid situations in which beliefs about an object or behavior are inconsistent with another as this will lead to uncomforted feelings and inner tension (Telci, Maden, & Kantur, 2011). Following this thought, a consumer who has decided to distribute negative O-WOM after experiencing a negative experience with a company will stick to this position to keep the internal balance and most likely will translate it into a decision to discontinue the relationship with this company (Wangenheim, 2005). Further support for our decision to relate negative O-WOM to repatronage and switching intentions is provided by Szymanski and Henard (2001) who state that negative WOM reduces consumer's repatronage intentions, that is, intentions to buy from the same company in the future again (e.g., Hellier, Geursen, Carr, & Rickard, 2003; Hess, Ganesan, & Klein, 2003). Prior research also has shown that consumers who have negative experiences with a company are most likely to switch to a competitor (Loveman, 1998; Rust & Sahorik, 1993; Zeelenberg & Pieters, 2004). Therefore, voicing a negative opinion online may precede increased switching intentions. Given the above, it seems safe to assume the following relationships:

**H3:** Negative O-WOM negatively influences repatronage intentions.

**H4:** Negative O-WOM positively influences switching intentions.

### *3.3 The moderating role of community usefulness*

Community usefulness equals consumer's desire to help other community members by disclosing his/her own experiences (Hennig-Thurau et al., 2004). Reflecting concerns for other consumers, community usefulness, is rather social and altruistic in nature (Dichter, 1966; Sundaram et al., 1998). When spreading negative O-WOM as a way to help other community members, it seems plausible to assume that the sender will not only feel

committed to keep to this position for himself (cf. self-perception theory), *but also* to avoid being faced with any unwanted social consequences (e.g. lower social ties, questionable believability; see (Brown et al., 2007)) due to what others would otherwise perceive as inconsistency between the information distributed and his/her own behavior. This makes it likely to assume that the more negative O-WOM is spread with the purpose to help other community members, the more likely it is that the sender of the negative O-WOM will behave in accordance with the contents of the message (Swaminathan, Page, & Gurhan-Canli, 2007). This leads us to propose the following two hypotheses:

**H5a:** Community usefulness moderates the relationship between negative O-WOM and repatronage intention negatively.

**H5b:** Community usefulness moderates the relationship between negative O-WOM and switching intention positively.

### *3.4 The moderating role of company usefulness*

An alternative and more company-oriented perspective on consumers' desire to help others via negative O-WOM comes from the literature on relationship marketing (e.g. Forrester & Maute, 2001; Hart et al., 1990; Tronvoll, 2012). Following this school of thought, the distribution of negative O-WOM may enclose consumers' desire to show the company behind the product(s) what aspects of their product(s) and/or customer service lack behind and require improvement. As such, they intend to provide the company with valuable feedback. The extent to which consumers openly disclose their experiences with a desire to help the company is defined here as company usefulness (Hennig-Thurau et al., 2004). In particular, company usefulness may be prevalent in situations where consumers personally attach themselves to companies (Albert, Merunka, & Valette-Florence, 2008; Vlachos & Vrechopoulos, 2012) and/or where established relationships exist (Blodgett & Granbois, 1992; Eccles & Durand, 1998; Stephens & Gwinner, 1998). In such situations consumers feel a mutual and close relationship with a company, and may decide to invest in the relationship by providing feedback when needed (Vlachos & Vrechopoulos, 2012). This investing not only occurs on an affective base, it usually also is driven rationally. Remaining silent about service failure would imply that it could reoccur as the company is unaware of it (Zaugg & Jäggi, 2006, p. 121). Only by communicating failure to the company, a negative incident can

be overcome and avoided in the future (Tronvoll, 2012). The communication of failure may even be accompanied by threats of leaving the company, in the hope that this forces the company to recover the problem adequately (Blodgett & Granbois, 1992). Such complaining most likely comes from loyal customers who actually have a higher interest in service recovery than leaving the company. In fact, unlike disloyal customers who usually leave the company without complaining, previous research has indicated that complaining customers are amongst the most loyal customers (Blodgett & Granbois, 1992; Eccles & Durand, 1998; Stephens & Gwinner, 1998). Given the above, it seems plausible to hypothesize that:

**H6a:** Company usefulness moderates the relationship between negative O-WOM and repatronage intention positively.

**H6b:** Company usefulness moderates the relationship between negative O-WOM and repatronage intention negatively.

## **4. Research method**

### *4.1 Procedure*

Data was collected via consumer discussion forums about telecom providers. Telecom providers provide experiential services. Consumption of experiential services is relatively often accompanied by O-WOM (Park & Lee, 2009), which makes forums of telecom providers an interesting research context. The fact that telecom forums frequently are used to ask for assistance in case of problems or to inform others about bad experiences, further supports our decision to focus on these forums. To enhance the external validity of our findings, we selected four forums of well-known telecom providers in The Netherlands. For each of these forums, we got permission from its operator to approach forum members for the purpose of the study.

Following Lee, Park and Han (2008), consumers were approached after they disclosed negative experiences online. A member of the research team monitored the four forums and sent the senders of negative O-WOM an e-mail invitation to participate in the research no later than three hours after their online disclosure. Approaching the respondents within this short period of time was deemed important since consumers may face difficulties in recalling emotional experiences from the past (Dubé & Morgan, 1996). The e-mail invitation led to an

online questionnaire, which contained the questions to measure the research constructs and the sociodemographics gender, age, frequency of visiting the forum, and duration of relationship with the telecom provider. At the first page of the online questionnaire each respondent was confronted with a copy of his/her negative O-WOM. This would help them to keep the right frame of reference and call to mind the emotions that were present when they wrote the message.

#### *4.2 Measures*

We used existing, validated measures and operationalized them using 7-point Likert (strongly disagree-strongly agree), rating (very positive-very negative) or semantic differential scales. A few wordings were slightly modified to make the scales more applicable to the research context.

Positive affect and negative affect were operationalized with five Likert scale items that were taken from Laros and Steenkamp (2005). The items for positive affect included the emotions happiness, joy, enthusiasm, optimism and contentment. The items for negative affect included the emotions anger, frustration, irritation, unfulfilled and discontentment. The selected emotions reflect basic emotions in consumer behavior that have been demonstrated to apply to any consumption setting (Laros & Steenkamp, 2005; Nyer, 1997; Richins, 1997). To measure negative O-WOM we used items from Leung (2002) and Wheelless (1978), resulting in a rating scale containing the following three items: “On the whole the sentiment of my disclosure about my telecom provider is...”, “I disclosed myself in the following manner...”, and “Most of the things I have revealed in my message have the following sentiment...”. Given that the respondents answered these questions just after they disclosed a negative statement online, and were confronted with this statement before answering the questions, the negative O-WOM measures should be interpreted as perceptions of actual O-WOM rather than O-WOM intentions. Repatronage intention was measured with three semantic differential scales reflecting the intention to repurchase from the same telecom provider after the end of a subscription period: very unlikely-very likely, very improbable-very probable, definitely no-definitely yes (Wakefield & Baker, 1998); (Hui, Zhao, Fan, & Au, 2004). Switching intention was measured with a three item Likert scale: “I intend to switch to a competitor in the future”, “I would favor the offerings of other telecom providers before my current telecom provider in

the future” and “I will consider to switch telecom providers soon” (Bougie, et al., 2003; Harris & Goode, 2004; R. A. Ping, 1993). To measure community usefulness and company usefulness existing Likert scale items were modified from Davis (1989) and Hennig-Thurau et al. (2004). Community usefulness was measured with four items: “I want to help others with my own experiences”, “I want to give others the opportunity to buy the right services”, “I want to make it easier for others to choose a telecom provider”, and “I want to provide others with useful advice to make a good decision”. Company usefulness was operationalized with the following 4 items: “My message will support the telecom provider in its development”, “The telecom provider will improve from my message for the future”, “My message will enhance the effectiveness of the telecom provider”, and “My message will provide the company with useful feedback for their operations”.

### *4.3 Sample*

236 invitations were send out, of which 95 forum members participated in our study. 80% (n=76) were men, 20% (n=19) were woman. The respondents were between ages 16 and 67. The majority of the sample was between 35 and 55 years old (n=55, 54.8%). 60% (n=57) of the respondents indicated to visit the forum ones per month or more. Of the respondents 64.2% (n=61) reported to have a customer-provider relationship for two years or more. The sample characteristics imply that our study is biased towards middle-aged, mostly male consumers, who are rather regular forum visitors and have an established relationship with their telecom provider. The operators of the forums confirmed that this user profile matched with their knowledge of the typical forum user. Therefore, non-response bias was unlikely to be an issue.

## **5. Results**

The data in this study was analyzed by using Partially Least Squares (PLS) modeling. PLS is a technique that uses a combination of principal component analysis, path analysis, and regression analysis (Pedhazur, 1982; Wold, 1985). PLS allows researchers to estimate models with relative small sample sizes (Henseler, Ringle, & Sinkovics, 2009). As a rule of thumb, the sample size should at least be 10 times the number of predictors of either the number of items of the most complex construct or the largest number of independent constructs leading to a dependent construct, whichever is greater (Wasko & Faraj, 2005, p.46). The size of our sample (n=95) met this rule and justified the use of PLS for the statistical analyses.



### 5.1 Test of measurement model

The software package Smart PLS (Ringle, Wende, & Will, 2005) was used to assess the measurement model. The analysis confirmed the convergent validity of the measures as the factor loadings exceeded the value of 0.50 (Hair, Black, Babin, & Anderson, 2010), the composite reliability scores surpassed the recommended level of 0.70, and the AVE-scores exceeded the recommended level of 0.50 (cf. Devellis, 2012; Hair et al., 2010; Netemeyer, Bearden, & Sharma, 2003) (see table 2).

**Table 2. Validity and reliability statistics**

Construct	Number of items	Cronbach's alpha	Composite reliability	AVE
Negative affect	5	0.95	0.96	0.82
Positive affect	5	0.97	0.97	0.88
Negative O-WOM	3	0.96	0.97	0.92
Community usefulness	4	0.91	0.93	0.76
Company usefulness	4	0.79	0.81	0.53
Repatronage	3	0.98	0.99	0.97
Switching	3	0.94	0.96	0.89

We assessed the discriminant validity of the measures by studying the cross-loading matrix in the PLS output. All items loaded high on their intended factors while loading substantially lower on the other factors. As such, first evidence for discriminant validity was provided. We continued the discriminant validity testing with a comparison of the squared pairwise correlations between the constructs with the AVE-scores (Table 3). For each construct the AVE exceeded the values of the squared correlations with the other constructs, hereby reconfirming the discriminant validity of our measures (cf. Ping, 2004).

**Table 3. Discriminant validity analysis**

Construct	1	2	3	4	5	6	7
1. Negative affect	<b>0.825</b>						
2. Positive affect	-0.474	<b>0.884</b>					
3. Negative O-WOM	0.385	-0.413	<b>0.920</b>				
4. Community usefulness	-0.012	0.054	-0.010	<b>0.762</b>			
5. Company usefulness	0.001	0.009	-0.055	0.012	<b>0.527</b>		

6. Repatronage	-0.101	0.105	-0.255	-0.039	0.105	<b>0.965</b>
7. Switching	0.120	-0.125	0.255	0.072	-0.053	<b>0.886</b>

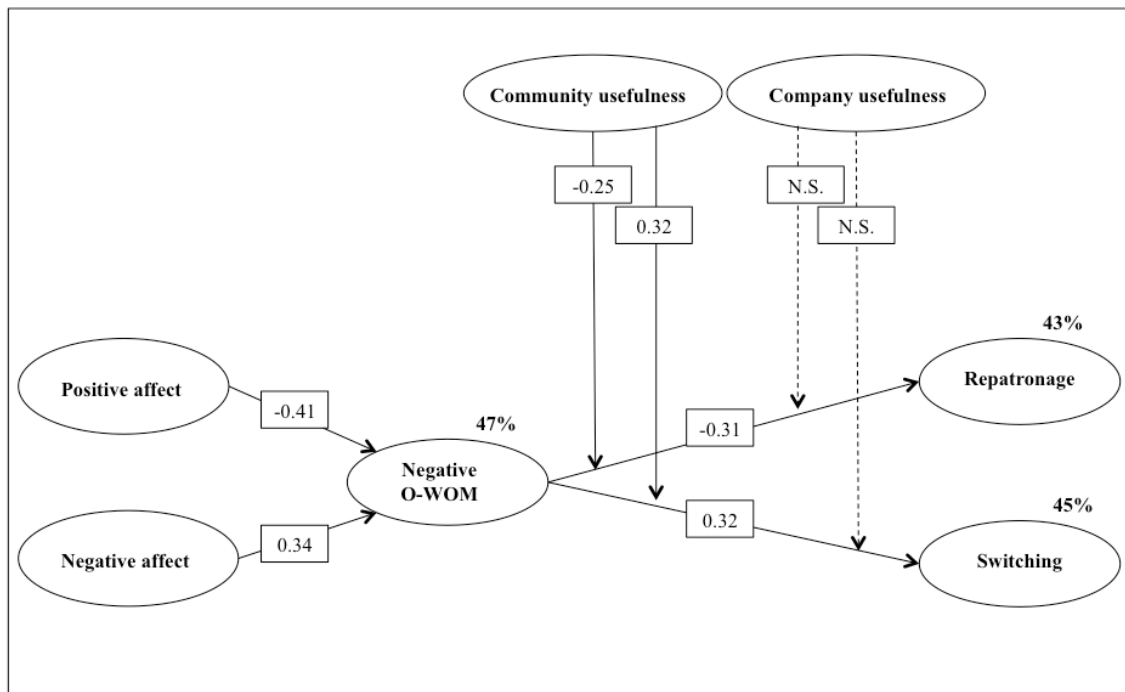
Note: The bold diagonal scores are the average variance extracted (AVE) of each individual construct. The off-diagonal scores are the squared correlations between the constructs.

Then, the reliability of the scales was assessed and established as the Cronbach's alpha and composite reliability surpassed the advocated level of 0.70, and the AVE scores exceeded the recommended level of 0.50 (Devellis, 2012; Hair et al., 2010). Finally, as all data were self-reported and collected at one point in time, we decided to test for common method bias. Harmon's single factor test was conducted by performing an exploratory factor analysis (principle components analysis) with all measurement items (cf. Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). As more than one single factor emerged and the largest factor did not account for the majority of the variance (39.1%), common method bias was unlikely to be an issue.

### 5.2 Test of structural model

We then estimated the standardized beta coefficients ( $\beta$ ) and  $R^2$  values of the structural model using the bootstrapping technique (500 re-samples). Figure 2 shows the results.

**Figure 2. PLS results for research model**



Using the beta-values and explained variances as criteria, the results demonstrate a strong predictive validity of our model. Obviously, the model had a good fit to the data. All paths of our basic model structure were significant and rather strong in nature, implying the acceptance of hypotheses 1, 2, 3, and 4. Regarding the moderators, in line with our assumptions community usefulness significantly moderated the influence of negative O-WOM on repatronage and switching intentions. This led to the acceptance of hypotheses 5a and 5b. Moderating effects of company usefulness on the influence of negative O-WOM on repatronage and switching intentions, however, were not found. Therefore, hypotheses 6a and 6b were rejected. Table 4 summarizes the implications of the results for our hypothesis-testing.

**Table 4. Summary of the hypotheses testing results**

Hyp.	Path	$\beta$	T-statistic	Sign.	Result
1	Positive affect $\rightarrow$ Negative O-WOM (-)	-0.41	2.821	<.01	Accepted
2	Negative affect $\rightarrow$ Negative O-WOM (+)	0.34	2.288	<.05	Accepted
3	Negative O-WOM $\rightarrow$ Repatronage (-)	-0.31	2.823	<.01	Accepted
4	Negative O-WOM $\rightarrow$ Switching (+)	0.32	2.999	<.01	Accepted
5a	Negative O-WOM * Community usefulness $\rightarrow$ Repatronage (-)	-0.25	1.853	<.05	Accepted
5b	Negative O-WOM * Community usefulness $\rightarrow$ Switching (+)	0.32	2.363	<.01	Accepted
6a	Negative O-WOM * Company usefulness $\rightarrow$ Repatronage (-)	0.24	1.099	N.S.	Rejected
6b	Negative O-WOM * Company usefulness $\rightarrow$ Switching (+)	-0.14	0.583	N.S.	Rejected

### 5.3 Post-hoc analysis

To test the robustness of the hypothesized causal chain between emotion  $\rightarrow$  negative O-WOM  $\rightarrow$  repatronage/switching intentions a post-hoc mediation test was conducted. This step was assumed important as prior literature has shown that emotion may also lead directly to behavioral intentions (Babin & Babin, 2001; Machleit & Eroglu, 2000). An alternative model was specified. This model extended our basic model structure, consisting of the relationships as specified in hypothesis 1 up to and including 4, with direct influences of both types of affect on repatronage and switching intentions. Again Smart PLS was used to compute the

statistical results, which are displayed in Appendix A. The results provide strong support for the mediating role of negative O-WOM as no significant direct influences of positive and negative affect on any of the intentions was found while the influence between the other constructs remained significant and rather strong. Further support for the mediating role of negative O-WOM was provided when comparing the results of the alternative model with a model version without the direct influences of positive and negative affect on repatronage/switching intentions (Appendix A). The amount of variance explained in both models is exactly the same, implying that the inclusion of direct influences on the repatronage/switching intentions does not add any predictive value. Also the differences in beta value are negligible. In sum, the post-hoc analysis strongly supported the mediating role of negative O-WOM between emotion and behavioral intentions.

## **6. Discussion and conclusion**

### *6.1 Key findings*

Together positive and negative affect explained 47 percent of the variance of negative O-WOM. Evidently, when consumers are confronted with negative consumption experiences this elicits emotions of anger and disappointment towards the service provider (Zeelenberg & Pieters, 2004), which drives them to share these negative experiences openly online. Also in line with our expectations, experienced positive affect had a negative effect on negative O-WOM. The nature of the effect, just like negative affect a rather high beta-value, may feel slightly counterintuitive given the context of our research (i.e. openly complaining customers). Following research on mood repair strategies (e.g. Chen, Zhou, & Bryant, 2007; Isen, 1984; Rusting & DeHart, 2000), however, customers facing a negative situation may search for positive cues or retrieve positive memories to make oneself feel better. Therefore, rather symmetrical effects of positive and negative emotion in negative consumption settings are not unexpected when found (see Isen, 1989). Overall, the findings on both types of affect are consistent with previous findings that affect has a direct influence on WOM (Nyer, 1997; Zeelenberg & Pieters, 2004). We demonstrated that this relationship also holds in an *online* context.

Negative O-WOM accounted for 43 up to 45 percent of the variance of repatronage and switching intentions respectively. This indicates that negative O-WOM by itself is an important determinant of response behavior. This contradicts the findings by Zeelenberg and

Pieters (2004) and Nyer (1997) that consumers use negative WOM merely as a venting mechanism. Obviously, consumers who utter their experiences online do so in a conscious manner (Gibbs, Ellison, & Heino, 2006); it is indicative for their feelings towards the company and seems predictive of their future behavior.

The findings further show that community usefulness had a significant moderating effect on the relationship between negative O-WOM and consumers' response behavior. This indicates that when consumers express themselves negatively online about a product or service, and they do not just do this for themselves but also with the objective to help other community members, they will be more inclined to switch to another company and less likely to engage in repatronage behavior. This finding underlines the relevance of community usefulness as recognized by Hennig-Thurau et al. (2004). Contrary to our expectations, company usefulness did not moderate the relationship between negative O-WOM and behavioral intentions. A possible explanation for this finding could be that consumers perceive online forums not to be the right medium for openly distributing feedback to companies. These rather open community-like websites typically foster information-exchange and open communication between consumers, providing the consumer population with a certain level of empowerment towards the company (Cova and Pace, 2006). Typically, such communities are characterized by high consumer sovereignty (cf. Shaw, Newholm and Dickinson, 2006), high member trust and close social ties (Wang and Chen, 2012). These characteristics make it less likely that consumers will distribute information openly as a way to help the counterpart of the relationship, that is, the company. Rather, in such situations consumers may decide to join forces with the consumer population against the company (Pitt, Berthon, Watson, & Zinkhan, 2002; Rezaabakhsh, Bornemann, Hansen, & Schrader, 2006) instead of being seen as a consumer representative of this company.

## *6.2 Theoretical implications*

The findings of this study have several theoretical implications. First, rooted into self-perception and dissonance theory, we demonstrated that negative O-WOM is indicative for the future behavior of the sender of these messages. As such, we expanded the established research stream on the influence of negative O-WOM on the behavior of its receivers (e.g. Cheung, Lee, & Rabjohn, 2008; Park, Lee, & Han, 2007). The adoption and validation of the sender's perspective to study the impact of negative O-WOM classifies as contextual extension (see Pitt et al., 2002). Second, predicated upon the theory of social sharing, this

study was amongst the first to show empirically that openly expressed emotions significantly and directly precede negative O-WOM. By demonstrating that both positive and negative affect play a substantial role in the distribution of negative O-WOM our research extends prior research proposing negative emotion as primary WOM determinant (Babin & Babin, 2001; Machleit & Eroglu, 2000; Soscia, 2007). Thus, our research provided a more comprehensive picture of the role of emotion in negative O-WOM. Third and finally, this research extended previous research on motivations underlying O-WOM (Hennig-Thurau et al., 2004) by providing evidence that community usefulness may function as important moderator between negative O-WOM and senders' response behavior. This sheds new light on how altruistic motivations may interact with negative online disclosures and puts the social side of online complaining into a renewed perspective.

### *6.3 Practical implications*

This study makes three practical contributions. First, we provide evidence that negative O-WOM is of vital importance to companies because it is highly predictive of senders' future behavior. Obviously, the relevance of negative O-WOM goes beyond being of influence to other consumers, which makes it even more imperative for companies to detect negative statements and take action before these lead to switching behavior of the senders of these messages. The use of webcare teams may be of use here. Previous research has shown that these customer-centered teams who aim to resolve problems contribute to more positive company evaluations (Van Noort & Willemsen, 2011) and eventually result in fewer negative messages online (Wigley & Lewis, 2011). Given the implications of this research, we encourage such webcare teams to develop and/or use mechanisms to detect disclosure of negative emotions as soon as possible, as well as mechanisms to engage in online conversations with consumers who recently expressed themselves negatively. Possibly, the use of emotion detection and sentiment analysis tools and techniques could be of use here (see Montoyo, Martínez-Barco, & Balahur, 2012). Second, consumers who want to help other community members are strengthened in their behavioral decisions. This implies that when consumers reveal in their messages that they disclose their experiences because they are concerned for others, this can be considered as an important reinforcer of their behavioral response. Therefore, webcare teams should focus on the detection of such altruistic signals and prioritize solving the problems that triggered the disclosure of these negative responses in particular. Third, company usefulness did not moderate the influence of negative O-WOM on

behavioral intentions. Therefore, we may conclude that detecting signals showing that the sender of negative O-WOM aims to assist the company is unlikely to be of value when the goal is to further detect and prioritize the most urgent customer cases to be solved on the short term. As referred to in the above, it seems believable that customers are relatively reluctant to provide feedback to the company via open communications as this contrasts with their social view of being part of a united group of consumers. This is not to say, however, that a customer may not be willing to assist the company by giving feedback when facing an unpleasant experience. As customers that provide critical feedback to the company usually are amongst the most loyal customers (Blodgett & Granbois, 1992; Eccles & Durand, 1998; Stephens & Gwinner, 1998), enabling the right feedback mechanisms will help companies in detecting the most loyal customers and assure that these are serviced adequately. To harvest such feedback to its fullest potential, more closed systems such as feedback forms and online customer service desks could be of value.

#### *6.4 Limitations and future research*

This study has been subject to a few limitations. First, the data collection of this research was restricted to online forums. While being a typical online environment where customers engage in complaining behavior, alternative social platforms that might be used for this purpose (e.g., social networking sites, blogs, microblogs) were not studied. To further test the robustness of our findings, future research might replicate our research model across multiple platforms. Comparably, and this is the second limitation, we focused on forums of telecom providers. The products offered in this industry are relatively commoditized and offered by a substantial number of different providers (Ferguson & Brohaugh, 2008), which implies that customers might be more willing to consider switching to another provider (cf. Barnes, 2003). For more individualized products or for products that consumers are attached emotionally to, the magnitude of the effect of negative O-WOM on behavioral intentions might be different. We therefore encourage researchers to study the influence of negative O-WOM across multiple industries and different products. Third, this research has addressed the antecedents and consequences of posting a negative comment online from the viewpoint of the consumer. While this setup provides companies with a fuller understanding of the negative O-WOM phenomenon, we did not examine how companies could cope with negative online expressions in a most efficient way. Future research could center on the best strategy for dealing with negative O-WOM, for example by examining which recovery strategies negatively moderate the influence of negative O-WOM on senders' switching intentions.

Fourth and finally, following the established body of literature, this research conceptualized negative O-WOM in a rather general way without differentiating for the sources leading to the disclosure and spread of information. Sundaram, Mitra and Webster (1998), however, grouped negative consumption experiences into four categories, namely bad product performance, failing problem recovery, unfair pricing policies, and unfriendly/ low expertise customer service personnel. An interesting avenue for future research would be to study whether there are any differences in the determinants and consequences of negative O-WOM across such categories, as well as to explore the effectiveness of different recovery strategies within each of these situations.



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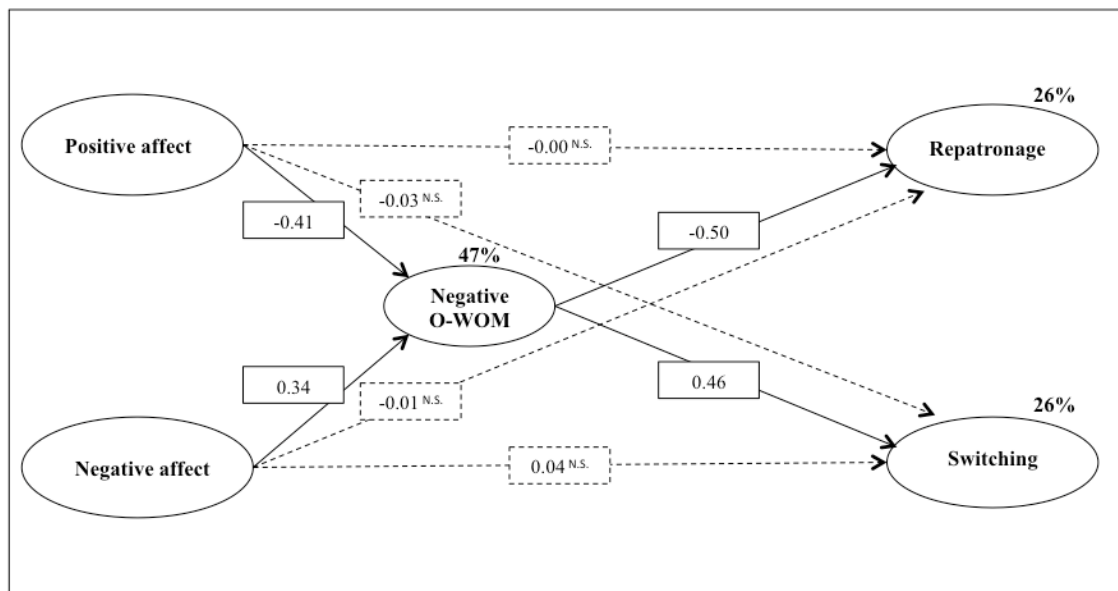
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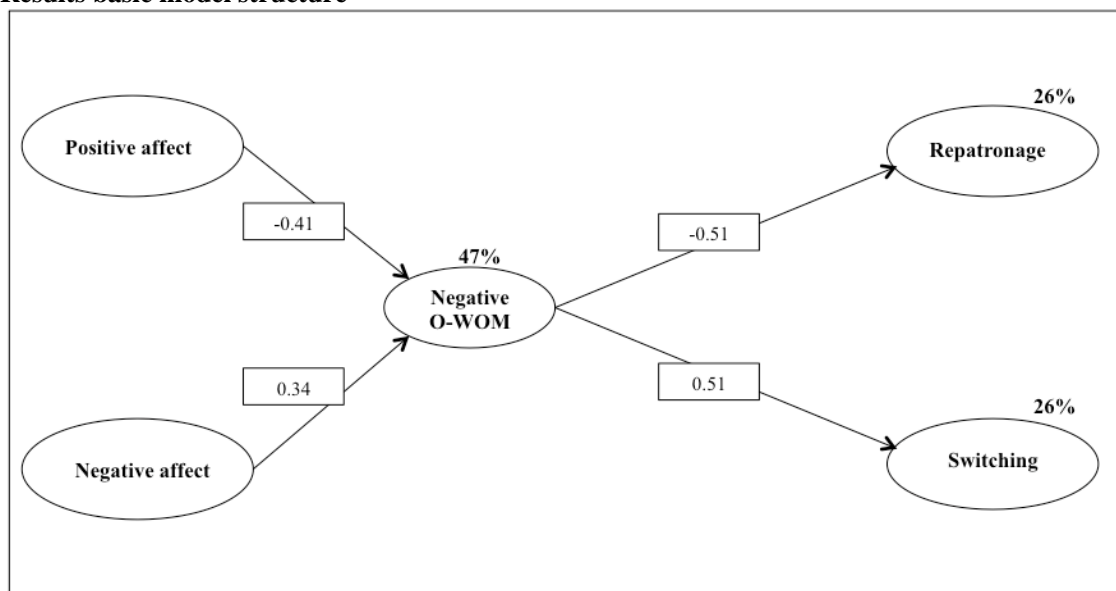
## APPENDIX A: Results mediation testing

### Results alternative model



Note: all significant influences are significant at the  $p < .01$  level, except for negative affect  $\rightarrow$  negative O-WOM ( $p < .05$ )

### Results basic model structure



Note: all influences are significant at the  $p < .01$  level, except for negative affect  $\rightarrow$  negative O-WOM ( $p < .05$ )

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